

**SYSTEMS AND METHODS FOR MODELING CREDIT RISKS OF PUBLICLY
TRADED COMPANIES**

Abstract of the Invention

5 There are provided new structural default models for modeling the likely default of publicly
traded companies. In a first embodiment, the invention is straight-forward to implement and
allows the capture of some important ingredients of the actual default, including positive short-
term CDSs. In a second embodiment the model is somewhat more versatile and complex.
10 Provided is a very efficient method for dealing with the timing of a default boundary, that is,
jumps in the company's value, etc. Further provided is a process using Fast Fourier Transform
matrix processing for processing the structural default models in a computationally efficient
manner.